

Fletcher, Heald & Hildreth, P.L.C.
1300 North 17th Street 11th floor
Arlington VA 22209
703-812-0400 (voice)
703-812-0486 (fax)

MITCHELL LAZARUS
703-812-0440
LAZARUS@FHHLAW.COM

December 2, 2002

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street SW
Washington DC 20554

Re: ET Docket No. 99-231, Spread Spectrum Devices
Ex Parte Communication

Dear Ms. Dortch:

Pursuant to Section 1.1206(a)(1) of the Commission's Rules, on behalf of Intersil Corporation and Symbol Technologies, Inc., I am electronically filing this written ex parte communication in the above-referenced proceeding.

This letter responds to a "Reply to Opposition To Petition for Reconsideration" filed by Warren C. Havens and Telesaurus Holdings GB, LLC (LMSW) on September 16, 2002, in light of subsequent filings.

BACKGROUND

This proceeding's Second Report and Order relaxed the technical rules on permissible modulations under Section 15.247.¹ But it left unchanged the prior limits on both maximum peak power and power spectral density. The new rules thus give manufacturers greater flexibility to accommodate users' needs, without increasing interference potential.

On July 25, 2002, LMSW filed a Petition for Reconsideration of the Second Report and Order as it applies to the 902-928 MHz band, which Part 15 shares with the Location and Monitoring Service (LMS). LMSW asked the Commission to defer the rule changes noted

¹ *Spread Spectrum Devices*, 17 FCC Rcd 10755 at paras. 11-13 (2002) (Second Report and Order).

above, pending resolution of two rulemaking petitions: one filed by Progeny LMS LLC,² and one *intended* to be filed by LMSW. The reconsideration petition recited that "important developments" requested (or soon to be requested) in the two rulemaking petitions "would be jeopardized by premature changes" in the Part 15 rules."³ Elsewhere the reconsideration petition explained that "[i]ncreased flexibility may lead to increased traffic, and this may lead to interference with LMS operations."⁴ These are the Petition's sole stated grounds for reconsideration.

On September 5, 2002, Intersil and Symbol Technologies, both manufacturers of Part 15 devices, filed a timely opposition. They noted that the claims in LMSW's Petition are wholly speculative, resting in large part on a rulemaking petition that LMSW had not yet filed (and so far as we can tell, has still not been filed), and further, that LMSW failed to establish that the Second Report and Order will have any effect at all on LMS operations.

On September 16, 2002, LMSW filed a Reply to Opposition To Petition for Reconsideration. LMSW asserts that Intersil and Symbol Technologies lack standing to oppose LMSW: first, because "[n]either is described as producing or using any Part 15 devices for any band, including the 902-928 MHz band";⁵ and second, because Part 15 is not entitled to interference protection from LMS.⁶ On the sole substantive issue, LMSW agrees that the new rules will not cause increased interference from an individual Part 15 device.⁷ But it alleges that Part 15 interests sought the rule change to increase their sales of devices, and that the consequent greater numbers of devices will cause interference to LMS.⁸

² Progeny LMS, LCC, *Amendment of Part 90 of the Commission's Rules Governing the Location and Monitoring Service to Provide Greater Flexibility*, Petition for Rulemaking (RM-10403, filed March 5, 2002) (Progeny Petition).

³ LMSW Petition at 3.

⁴ Petition at 3-4.

⁵ LMSW Reply at 3.

⁶ LMSW Reply at 5-7. LMSW concedes nonetheless that Part 15 interests may present their view of the public interest. *Id.* at 5-6.

⁷ LMSW Reply at 8.

⁸ LMSW Reply at 8. LMSW is specifically concerned about interference from Part 15 devices "used outside of indoor or outdoor premises controlled by a person or business." *Id.*

RESPONSE TO LMSW

1. *Intersil and Symbol Technologies do not oppose easing the LMS rules, so long as Part 15 can operate throughout the 902-928 MHz band.*

The Progeny Petition, which LMSW cites in its opposition to the Part 15 rule changes, seeks elimination of the "spectrum cap" on LMS, elimination of the restriction on real-time interconnection, elimination of the restriction on the types of services LMS licensees may offer, and the substitution of technical limits, as necessary, for the current service limitations.⁹ *Intersil and Symbol Technologies do not oppose these requests.* Nor do we oppose Progeny's request to eliminate the "safe harbor" provision that now limits LMS licensees' rights to complain of interference from certain Part 15 operations.¹⁰ Even if all of Progeny's requests are granted, we believe that LMS (or its successor service) and Part 15 can continue to coexist successfully.

But LMSW would go much farther than Progeny. It recently reiterated its intention to file a rulemaking petition that would greatly curtail Part 15 operation at 902-928 MHz.¹¹ LMSW provided only a rough outline of its complicated "ATLIS" proposal, which would entail a complete reworking of the licensing rules (and licensees) in the 902-928 and 217-225 MHz bands, with implications for other bands as well. The ideas are not yet sufficiently developed to warrant comment, and in any event are not yet properly before the Commission. But we emphasize that our non-opposition to the Progeny Petition does *not* extend to the LMSW concept, which (says LMSW) would seek to require licensing of some Part 15 devices in the band under Part 90, to "retune" others, and to prohibit their further sale.¹² Intersil and Symbol Technologies will oppose these changes, if and when LMSW submits them in proper form and the Commission requests comment.

⁹ Progeny Petition at 23-29.

¹⁰ *Id.* at 28; 47 C.F.R. Sec. 90.361.

¹¹ LMSW filed the same 56-page paper, cited here as "LMSW Comments," in each of seven dockets: WT Docket No. 02-8 (27 MHz Federal Spectrum); WT Docket No. 02-55 (800 MHz Public Safety); WT Docket No. 00-32 (4.9 GHz Federal Government Band); PR Docket No. 92-257 (Maritime Communications); WT Docket No. 02-310 (WTB Biennial Review), RM-9664 (Regionet Wireless License LLC Petition on AMTS); and RM-10403 (Progeny LMS, LCC Petition on LMS).

¹² LMSW Comments at 7-8, 23.

In other words, although LMSW lumps its yet-undeveloped ATLIS concept together with the Progeny Petition as its basis for opposing the Second Report and Order in this docket, the two treat Part 15 very differently. We do not oppose the Progeny request to ease the LMS rules, because we believe the public (and our own industry) benefit most over the long term when users can extract the maximum value from spectrum. But ATLIS, in contrast, would unnecessarily limit use of the spectrum, and we will oppose it for that reason.

2. *Intersil and Symbol Technologies have standing in this proceeding.*

LMSW's arguments alleging lack of standing have no basis in the Commission's Rules or elsewhere.

First, and most important, the Commission's Rules do not impose any standing requirement on persons opposing a petition for reconsideration.¹³ Considering that "[a]ny interested person" may request a reconsideration in the first instance,¹⁴ simple fairness requires that any interested person be able to oppose one. Thus, even though Intersil and Symbol Technologies in fact are both major Part 15 manufacturers, that is not required for standing.

Second, while Part 15 devices must accept interference from LMS,¹⁵ that has no bearing on the question of standing to defend a Part 15 rule. Nothing in Section 15.5, which LMSW quotes at length,¹⁶ bars a Part 15 manufacturer from presenting its views to the Commission. Part 15 proponents routinely participate in rulemaking proceedings, along with licensed users of the same bands, and the Commission has never questioned their right to do so.¹⁷

¹³ See Section 1.429(f) ("Oppositions to a petition for reconsideration shall be filed within 15 days after the date of public notice of the petition's filing . . .")

¹⁴ 47 C.F.R. Sec. 1.429(a).

¹⁵ 47 C.F.R. Sec. 15.5.

¹⁶ LMSW reply at 5 n.5.

¹⁷ A limitation on who may come before the Commission in a rulemaking could well violate the U.S. Constitution. U.S. Const. amend. I ("Congress shall make no law respecting . . . the right of the people . . . to petition the government for a redress of grievances.")

LMSW mis-cites *Suncom Mobile & Data, Inc., v. FCC*¹⁸ for the proposition that "parties with no vested spectrum rights . . . do not have standing in formal legal proceedings."¹⁹ LMSW overlooks the key elements in that case. The *Suncom* opinion expressly limits its reach to the question of standing in an Article III (federal) court,²⁰ which the Commission is not. And, even if *Suncom* were broader than it is, and governed all "formal legal proceedings" (as LMSW claims), it still would not control an informal rulemaking such as this one.²¹ Finally, the *Suncom* petitioner's standing problem arose because its request to the Commission was "premature."²² But there is nothing premature about the opposition by Intersil and Symbol Technologies in this proceeding. To the contrary, these parties speak directly to a live controversy launched by LMSW itself.

In effect, LMSW seeks first to challenge a Part 15 rule, and then to deny standing to all of its conceivable opponents. Neither law nor common sense supports that position.

3. *The new rules in this docket will not increase interference.*

While conceding the new rules will not cause increased interference to LMS from any one Part 15 device, LMSW argues that Part 15 manufacturers requested the rule change so they could sell more devices, and hence fears that a greater number of devices will cause greater interference.²³

Again, this position must fail.

¹⁸ 87 F.3d 1386 (1996).

¹⁹ LMSW Reply at 6 n.6. This rule makes Part 15 devices secondary to a licensed service such as LMS.

²⁰ *Suncom*, 87 F.3d at 1387, 1389.

²¹ The notice-and-comment procedures of 5 U.S.C. Sec. 553, the legal basis for this docket, are widely described as "informal rulemaking." *E.g.*, 47 C.F.R. Secs. 1.1202(d)(5) (referring to "*informal rulemaking* proceeding conducted under section 553 of the Administrative Procedure Act") (emphasis added), 1.1206(a)(1) (same).

²² *Suncom*, 87 F.3d at 1387. The petitioner attempted to seek relief from restrictions on licenses it did not yet hold. *See also Use of the 220-222 MHz Band by the Private Land Mobile Radio Service*, 11 FCC Rcd 188, 201 at para. 186 (1995).

²³ LMSW Reply at 8.

First, although many (not all) Part 15 manufacturers supported the rule change in this docket, their stated goal was not primarily to increase the number of units sold. The more pressing problem was product performance. Maximum attainable data speed under the prior rules was only 11 Mbps. While that was adequate several years ago, it cannot meet all customers' needs today. The higher data speeds achievable under the new rules may ultimately sell more devices -- only time will tell -- but primarily they allow the sale of *better* devices.

Second, even a greater density of devices would not have the cumulative effect on interference that LMSW fears. The signal from a Part 15 device in the 902-928 MHz band attenuates rapidly in a typical environment.²⁴ Although the emissions add in principle, in practice they fall off so quickly with distance that there is little signal to add. As a result, an interference scenario involving multiple UWB emitters is strongly dominated by the nearest emitter, for all others combined make only a trivial contribution. For example, it would take 1,000 emitters at 100 meters distance from a victim receiver to deliver the same signal strength as just one emitter 10 meters away.²⁵ Even sales far in excess of the Part 15 industry's most optimistic projections cannot put enough devices into service to yield significant cumulative interference.

In any event, even a showing of increased likelihood of interference would not, in itself, be grounds for deferring the new rules. LMS frequencies are entitled to a reasonable level of protection from Part 15 devices, to be sure, but not to an absolute certainty of non-interference. As in all cases, the Commission regulates this band in the public interest. And the public interest in LMS is limited. Indeed, there is no LMS service at all, owing to a lack of available equipment; and the licensees have conceded that equipment will *never* be available for the service's intended purposes.²⁶ At the same time however, Part 15 consumer devices in the 902-928 MHz band are burgeoning -- a fact the public interest calculation must take into account.

In short, the rule change will not increase interference to LMS, as LMSW fears; and even if it did, to a limited degree, the public interest would still favor leaving the rule change in place.

²⁴ Typical 900 MHz losses in urban environments -- where unlicensed devices are most densely deployed -- are *at best* $1/R^3$. See Theodore Rappaport, *Wireless Communications: Principles and Practice* at 118 (Prentice Hall, 1996).

²⁵ This conservatively assumes $1/R^3$ losses for all emitters.

²⁶ Progeny Petition at 15-16. No one is interested in making LMS equipment because GPS has "antiquated" the technology. *Id.* at 16.

CONCLUSION

Unable to compete with accurate and inexpensive GPS devices, LMS at 902-928 MHz has been a failure. Yet Part 15 operation in the same band has been a great success. LMSW now seeks to delay non-interfering improvements to Part 15 equipment while its co-licensees try to eliminate the rule restrictions on LMS service, effectively hoping to convert the band to mobile phone service.²⁷

Intersil and Symbol Technologies do not oppose the LMS licensees' reasonable requests to ease the LMS rules, because we believe the public (and our industry) benefit most over the long term when users can extract the maximum value from spectrum. By the same token, however, the pending LMS request is no reason to bar Part 15 providers from providing maximum value to their own customers, through a reasoned rule change that does not increase interference to other users of the band.

If there are questions about this filing, please call me at the number above.

Respectfully submitted,

Mitchell Lazarus
Counsel for Intersil Corporation
and Symbol Technologies, Inc.

cc: Chairman Michael Powell
Commissioner Kathleen Q. Abernathy
Commissioner Michael J. Copps
Commissioner Kevin J. Martin
Edmund J. Thomas, Chief, OET
Julius P. Knapp, Deputy Chief, OET
Bruce Franca, Deputy Chief, OET
Alan J. Scrimme, Chief, Policy & Rules Division
Ira Keltz, Deputy Chief, Policy & Rules Division
Geraldine Matise, Deputy Chief, Policy & Rules Division
Karen E. Rackley, Chief, Technical Rules Branch, OET
Lisa Gaisford, Chief of Staff, OET
John A. Reed, Senior Engineer, Technical Rules Branch, OET

Warren C. Havens and Telesaurus Holdings GB, LLC,
2509 Stuart Street, Berkeley CA 94705

²⁷ Progeny Petition at 23-29.